



## Immune combinations and complete response: a new hope for metastatic renal cell carcinoma

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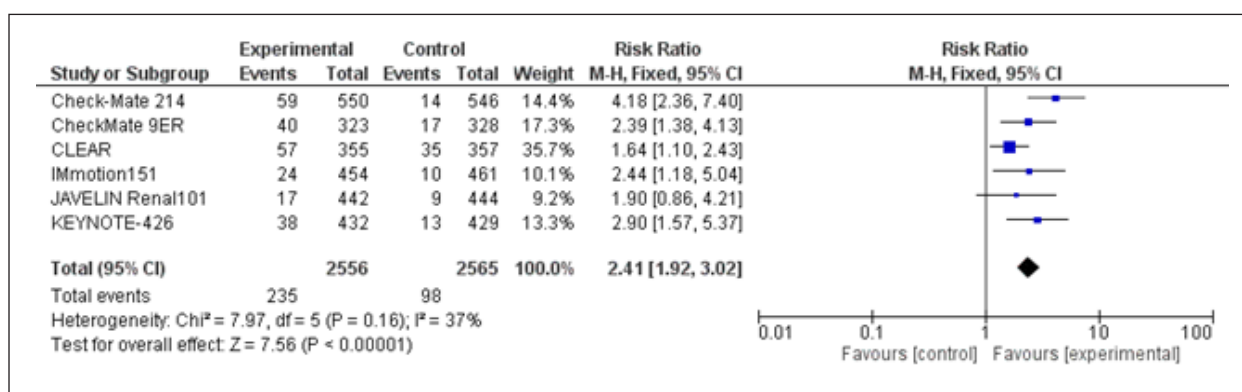
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According to Response Evaluation Criteria in Solid Tumours (RECIST), complete response is defined as “disappearance of all target lesions” [1]. Any pathological lymph nodes (whether target or non-target) must reduce to < 10 mm along the short axis. In all probability, patients who achieve complete response will have a better prognosis than those who do not.

Recently, several phase III studies have shown that immune combinations have greater efficacy than TKI monotherapy for primary treatment of metastatic renal cell carcinoma (mRCC) [2-7]. We performed a pooled analysis of pivotal phase III

studies investigating immune combinations versus sunitinib administered to treatment-naïve mRCC patients, and compared the pooled risk of complete response of combination therapy with monotherapy. Pooled analysis with a fixed-effects model revealed that the incidence of complete response was higher in patients receiving immune combinations than in those treated with sunitinib alone [risk ratio (RR) = 2.41, 95% confidence interval (CI): 1.92-3.02;  $p \leq 0.01$   $I^2 = 81\%$ ; Fig. 1].

Significant limitations of our evaluation should be disclosed, namely meta-analysis based on literature data rather than on individual patient data,



**Figure 1.** Forest plots of risk ratio (RR) for complete response comparing immune combinations with sunitinib

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as well as substantial heterogeneity among experimental arm combinations. Nevertheless, our results point to higher complete response rates with immune combinations than with monotherapy, underlining the relevance of this approach in mRCC.

#### Conflict of interest

The other authors declare no conflict of interest.

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#### Ethical approval

Not necessary.

#### Contributorship

G.R. had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. Study concept and design: G.R., M.C. Acquisition of data: G.R. Analysis and interpretation of data: G.R. Drafting of the manuscript: G.R. Critical revision of the manuscript for important intellectual content: G.N. Statistical analysis: G.R. Supervision: G.N.

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